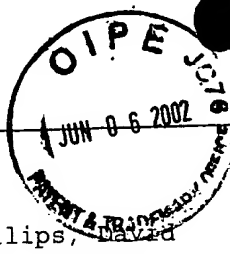


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SEQUENCE LISTING

<110> Philips, David  
Law, Debbie A.  
Alaimo, Lisa N.

<120> Modulation of Integrin-mediated Signal Transduction

<130> 44481-5008-02-US

<140> US 09/801,089

<141> 2001-03-08

<150> US 08/734,607

<151> 1996-10-18

<150> US 60/005,567

<151> 1995-10-18

<160> 27

<170> PatentIn Ver. 2.1

<210> 1

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<221> MOD\_RES

<222> (8)

<223> PHOSPHORYLATION

<220>

<221> MOD\_RES

<222> (20)

<223> PHOSPHORYLATION

<220>

<223> Description of Artificial Sequence: Beta 1  
subunit of integrin

<400> 1

Asp Thr Gly Glu Asn Pro Ile Tyr Lys Ser Ala Val Thr Thr Val Val  
1 5 10 15

Asn Pro Lys Tyr Glu Gly Lys  
20

<210> 2

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Beta 2

INS  
B12

A12

subunit of integrin

<220>

<221> MOD\_RES

<222> (5)

<223> PHOSPHORYLATION

<400> 2

Asp Leu Arg Glu Tyr Arg Arg Phe Glu Lys Glu Lys Leu Ser Gln Trp  
1 5 10 15

Asn Asn Asp Asn Pro Leu Phe Lys Ser Ala Thr  
20 25

<210> 3

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Beta 3  
subunit of integrin

<220>

<221> MOD\_RES

<222> (8)

<223> PHOSPHORYLATION

<220>

<221> MOD\_RES

<222> (20)

<223> PHOSPHORYLATION

<400> 3

Asp Thr Ala Asn Asn Pro Leu Tyr Lys Glu Ala Thr Ser Thr Phe Thr  
1 5 10 15

Asn Ile Thr Tyr Arg Gly Thr  
20

<210> 4

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Beta 5  
subunit of integrin

<220>

<221> MOD\_RES

<222> (8)

<223> PHOSPHORYLATION

<220>

<221> MOD\_RES

<222> (28)

<223> PHOSPHORYLATION

<400> 4

Glu Met Ala Ser Asn Pro Leu Tyr Arg Lys Pro Ile Ser Thr His Thr  
1 5 10 15

Val Asp Phe Thr Phe Asn Lys Phe Asn Lys Ser Tyr Asn Gly Thr Val  
20 25 30

Asp

<210> 5

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Beta 6  
subunit of integrin

<220>

<221> MOD\_RES

<222> (8)

<223> PHOSPHORYLATION

<220>

<221> MOD\_RES

<222> (20)

<223> PHOSPHORYLATION

<400> 5

Gln Thr Gly Thr Asn Pro Leu Tyr Arg Gly Ser Thr Ser Thr Phe Lys  
1 5 10 15

Asn Val Thr Tyr Lys His Arg Glu Lys Gln Lys Val Asp Leu Ser Thr  
20 25 30

Asp Cys

<210> 6

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Beta 6  
subunit of integrin

<220>

<221> MOD\_RES

<222> (8)

<223> PHOSPHORYLATION

<220>

<221> MOD\_RES

<222> (20)

<223> PHOSPHORYLATION

<400> 6

Gln Thr Gly Thr Asn Pro Leu Tyr Arg Gly Ser Thr Ser Thr Phe Lys  
1 5 10 15

Asn Val Thr Tyr Lys His Arg  
20

<210> 7

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Beta 7  
subunit of integrin

<220>

<221> MOD\_RES

<222> (5)

<223> PHOSPHORYLATION

<220>

<221> MOD\_RES

<222> (25)

<223> PHOSPHORYLATION

<400> 7

Asp Arg Arg Glu Tyr Ser Arg Phe Glu Lys Glu Gln Gln Gln Leu Asn  
1 5 10 15

Trp Lys Gln Asp Ser Asn Pro Leu Tyr Lys Ser Ala Ile  
20 25

<210> 8

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: ITAM  
signaling motif in integrin

<220>

<221> misc\_feature

<222> (2)..(4)

<223> Xaa at positions 2 and 3 can be any amino acid; Xaa at  
position 4 is Leu or Ile.

<400> 8  
Tyr Xaa Xaa Xaa  
1

<210> 9  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Immune  
receptor activation motif

<220>  
<221> misc\_feature  
<222> (2)..(16)  
<223> Xaa at positions 4 and 16 is Leu or Ile; Xaa at  
positions 2, 3, 5-12, 14 and 15 can be any amino  
acid.

<400> 9  
Tyr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Xaa Xaa Xaa  
1 5 10 15

A12  
<210> 10  
<211> 23  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Control  
peptide for signal protein binding studies

<400> 10  
Asp Thr Ala Asn Asn Pro Leu Tyr Lys Glu Ala Thr Ser Thr Phe Thr  
1 5 10 15

Asn Ile Thr Tyr Arg Gly Thr  
20

<210> 11  
<211> 23  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Control  
peptide for signal protein binding studies

<400> 11  
Asp Thr Gly Glu Asn Pro Ile Tyr Lys Ser Ala Val Thr Thr Val Val  
1 5 10 15

Asn Pro Lys Tyr Glu Gly Lys

<210> 12  
 <211> 33  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Control  
 peptide for signal protein binding studies

<400> 12  
 Glu Met Ala Ser Asn Pro Leu Tyr Arg Lys Pro Ile Ser Thr His Thr  
 1 5 10 15  
 Val Asp Phe Thr Phe Asn Lys Phe Asn Lys Ser Tyr Asn Gly Thr Val  
 20 25 30

Asp

A12  
 <210> 13  
 <211> 34  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Control  
 peptide for signal protein binding studies

<400> 13  
 Gln Thr Gly Thr Asn Pro Leu Tyr Arg Gly Ser Thr Ser Thr Phe Lys  
 1 5 10 15  
 Asn Val Thr Tyr Lys His Arg Glu Lys Gln Lys Val Asp Leu Ser Thr  
 20 25 30

Asp Cys

<210> 14  
 <211> 27  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Control  
 peptide for signal protein binding studies

<400> 14  
 Asp Leu Arg Glu Tyr Arg Arg Phe Glu Lys Glu Lys Leu Ser Gln Trp  
 1 5 10 15  
 Asn Asn Asp Asn Pro Leu Phe Lys Ser Ala Thr

20

25

<210> 15  
 <211> 29  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Control  
 peptide for signal protein binding studies

<400> 15  
 Asp Arg Arg Glu Tyr Ser Arg Phe Glu Lys Glu Gln Gln Gln Leu Asn  
 1 5 10 15  
 Trp Lys Gln Asp Ser Asn Pro Leu Tyr Lys Ser Ala Ile  
 20 25

<210> 16  
 <211> 47  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> GPIIIa Beta 3 subunit

<400> 16  
 Lys Leu Leu Leu Thr Thr His Asp Arg Lys Glu Phe Ala Lys Phe Glu  
 1 5 10 15  
 Glu Glu Arg Ala Arg Ala Lys Trp Asp Thr Ala Asn Asn Pro Leu Tyr  
 20 25 30  
 Lys Glu Ala Thr Ser Thr Phe Thr Asn Ile Thr Tyr Arg Gly Thr  
 35 40 45

<210> 17  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> GPIIIa Beta 6 subunit

<400> 17  
 Lys Leu Leu Val Ser Phe His Asp Arg Lys Glu Val Ala Lys Phe Glu  
 1 5 10 15  
 Ala Glu Arg Ser Lys Ala Lys Trp Gln Thr Gly Thr Asn Pro Leu Tyr  
 20 25 30  
 Arg Gly Ser Thr Ser Thr Phe Lys Asn Val Thr Tyr Lys His Arg Glu  
 35 40 45

Lys Gln Lys Val Asp Leu Ser Thr Asp Cys  
50 55

<210> 18  
<211> 47  
<212> PRT  
<213> Homo sapiens

<220>  
<223> GPIIIa Beta 1 subunit

<400> 18  
Lys Leu Leu Met Leu Ile His Asp Arg Arg Glu Glu Ala Lys Glu Glu  
1 5 10 15

Lys Glu Lys Met Asn Ala Lys Trp Asp Thr Gly Glu Asn Pro Ile Tyr  
20 25 30

Lys Ser Ala Val Thr Thr Val Val Asn Pro Lys Tyr Glu Gly Lys  
35 40 45

A12  
<210> 19  
<211> 57  
<212> PRT  
<213> Homo sapiens

<220>  
<223> GPIIIa Beta 5 subunit

<400> 19  
Lys Leu Leu Val Thr Ile His Asp Arg Arg Glu Phe Ala Lys Phe Gln  
1 5 10 15

Ser Glu Arg Ser Arg Ala Arg Tyr Glu Met Ala Ser Asn Pro Leu Tyr  
20 25 30

Arg Lys Pro Ile Ser Thr His Thr Val Asp Phe Thr Phe Asn Lys Phe  
35 40 45

Asn Lys Ser Tyr Asn Gly Thr Val Asp  
50 55

<210> 20  
<211> 46  
<212> PRT  
<213> Homo sapiens

<220>  
<223> GPIIIa Beta 2 subunit

<400> 20  
Lys Ala Leu Thr His Leu Ser Asp Leu Arg Glu Tyr Arg Arg Phe Glu  
1 5 10 15



Lys Glu Lys Leu Lys Ser Gln Trp Asn Asn Asp Asn Pro Leu Phe Lys  
20 25 30

Ser Ala Thr Thr Thr Val Met Asn Pro Lys Phe Ala Glu Ser  
35 40 45

<210> 21  
<211> 52  
<212> PRT  
<213> Homo sapiens

<220>  
<223> GPIIIa Beta 7 subunit

<400> 21  
Arg Leu Ser Val Glu Ile Tyr Asp Arg Arg Glu Tyr Ser Arg Phe Glu  
1 5 10 15

Lys Glu Gln Gln Gln Leu Asn Trp Lys Gln Asp Ser Asn Pro Leu Tyr  
20 25 30

Lys Ser Ala Ile Thr Thr Thr Ile Asn Pro Arg Phe Gln Glu Ala Asp  
35 40 45

Ser Pro Thr Leu  
50

<210> 22  
<211> 52  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Consensus  
sequence for human GPIIIa Beta subunits

<220>  
<221> misc\_feature  
<222> (5)...(51)  
<223> Xaa at positions 5, 17, 19, 20, 21, 23, 25-28, 34,  
36, 37, 39-48, 50, 51 can be any amino acid.

<400> 22  
Lys Leu Leu Val Xaa Ile His Asp Arg Arg Glu Phe Ala Lys Phe Glu  
1 5 10 15

Xaa Glu Xaa Xaa Xaa Ala Xaa Trp Xaa Xaa Xaa Xaa Asn Pro Leu Tyr  
20 25 30

Lys Xaa Ala Xaa Xaa Thr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
35 40 45

Asn Xaa Xaa Tyr  
50

<210> 23  
<211> 23  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Proline-  
substituted form of Beta 3 subunit of integrin

<220>  
<221> MOD\_RES  
<222> (8)  
<223> PHOSPHORYLATION

<220>  
<221> MOD\_RES  
<222> (20)  
<223> PHOSPHORYLATION

<400> 23  
Asp Thr Ala Asn Asn Pro Leu Tyr Lys Glu Ala Thr Pro Thr Phe Thr  
1 5 10 15

Asn Ile Thr Tyr Arg Gly Thr  
20

<210> 24  
<211> 23  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:  
Monophosphorylated form of Beta 3 subunit of  
integrin

<220>  
<221> MOD\_RES  
<222> (20)  
<223> PHOSPHORYLATION

<400> 24  
Asp Thr Ala Asn Asn Pro Leu Tyr Lys Glu Ala Thr Ser Thr Phe Thr  
1 5 10 15

Asn Ile Thr Tyr Arg Gly Thr  
20

<210> 25  
<211> 23  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:  
Monophosphorylated form of Beta 3 subunit of  
integrin

<220>

<221> MOD\_RES

<222> (8)

<223> PHOSPHORYLATION

<400> 25

Asp Thr Ala Asn Asn Pro Leu Tyr Lys Glu Ala Thr Ser Thr Phe Thr  
1 5 10 15

Asn Ile Thr Tyr Arg Gly Thr  
20

<210> 26

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Motif for  
phosphotyrosine-binding domain

<400> 26

Asn Pro Leu Tyr  
1

<210> 27

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Consensus  
sequence for phosphotyrosine-binding domain

<220>

<221> misc\_feature

<222> (3)...(3)

<223> Xaa can be any amino acid

<400> 27

Asn Pro Xaa Tyr  
1